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ABSTRACT

The effect of the standardized test scores of transient students on the mean of the 9th, 10th, and 11th grade standardized test scores of a school was studied. The groups used in the study were grades 9, 10, and 11 at a new high school in Clarksburg (West Virginia). The study was conducted in the spring of 1998. Groups consisted of 204 9th graders, 219 10th graders, and 217 11th graders. The Basic Skills battery scores of the Scholastic Assessments Tests administered in April 1998 were used as raw data to determine if there was any significant difference in the achievement of the two groups, transfer and nontransfer, by performing t-tests. Two different comparisons were used to analyze the data for each class. First, the entire class mean was compared to the mean of the nontransfer students. Using analysis data derived from a t-test, no significant difference was found between the two means. Secondly, the mean of nontransfer students was compared to the mean of transfer students. Using a t-test for analysis, no significant difference was found between the two means. At the 0.05 level of significance, there was no significant difference in the groups. Results of this study seem to indicate that transient students did not have a significant effect on the school's scores, but this was possibly because only 50% of the school's transient students actually tested. The other 50% had moved to another school by test time. The transfer students' mean may also have been high since the school is new and serves as a magnet center attracting students desiring higher level classes not offered in all schools. The school had an open enrollment policy allowing students from surrounding counties admission. The school also hosted a number of foreign exchange students who tested. Three appendixes contain letters used in the study and test data for all students and transfer students. (Contains 6 tables and 64 references.) (Author/SLD)

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The Effect of Transient Students' Scores on the Norm of One High School's Standardized Basic Skills Test Battery

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A Thesis

Presented to

The Faculty of the Master of Arts Degree Program

Salem-Teikyo University

In Partial Fulfillment

of the Requirements for the Degree of

Master of Arts in Education

By

Carolyn Stevens Hill

August, 1998

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ABSTRACT

Various studies have been conducted on the effects of transfer students on the classroom, but few have discussed the effects of transfer students on the standardized test results for a school, especially in a rural area. The purpose of this study was to examine the effect of transient students' standardized test scores on the mean of the ninth, tenth, and eleventh grade standardized test scores of a school. The groups used in this study were the ninth, tenth, and eleventh grade classes at a new high school in Clarksburg, West Virginia. The study was conducted in the spring of 1998. Groups consisted of 204 ninth grade students, 219 tenth grade students, and 217 eleventh grade students. The Basic Skills Battery scores of the SAT administered in April, 1998 were used as raw data to determine if there was any significant difference in the achievement of the two groups, transfer and non-transfer, by performing t-tests. Two different comparisons were used to analyze the data for each class:

1. The entire class mean was compared to the mean of the non-transfer students. Using analysis data derived from a t-test, no significant difference was found between the two means.

2. The mean of non-transfer students was compared to the mean of transfer students. Using a t-test data for analysis, no significant difference was found between the two means. At the .05 level of significance there was no significant difference in the groups.

The results of this study seemed to indicate that transient students did not have a significant effect on the school's score, but that was possibly because only 50% of the transfer students into the school actually tested. The other 50% had moved to yet another school by test time. The transfer students' mean may also have been high since the school is new and serves as a magnet center attracting students desiring higher level classes not offered in all schools. The school had an open enrollment policy allowing students from surrounding counties admission. The school also hosted a number of foreign exchange students who also tested.

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CHAPTER ONE

INTRODUCTION

The purpose of this study was to investigate the effect of transient students' standardized test scores on the overall standardized test score mean of the ninth, tenth and eleventh grade.

State and national educational policy makers have increased pressure on schools and school districts to meet or exceed minimum standards as defined by the mean scores of one of a number of standardized tests. Testing results alone as the criteria for a school's success or failure must be examined in light of the pervasive effects of student mobility on learning outcomes (Beck, Kratzer, Isken, 1997; Kerbow, 1996; Ligon & Paredes, 1992).

Most systems for curriculum and instruction assume that students will be present for the entire learning sequence, whether it be a semester or an entire year. Remaining in the same school however, is no longer the norm for growing numbers of American students, a result of various changes in the students home life (Ligon & Paredes, 1992). Virtually all students' scores are included in the school mean, even if a student arrives the week of testing. Therefore, schools are being judged, at least in part, on the performance of students they did not teach (Beck,et al., 1997; Evans, 1996).

Research question

What would be the effect of transient students' Stanford Achievement Test scores on the overall ninth, tenth, and eleventh grade mean scores at a new, four year, magnet high school with approximately 1,100 students for the 1997-1998 academic year?

Hypothesis

H_o: Transient students' standardized test scores would not affect the mean of the ninth, tenth, or eleventh grade standardized test scores.

H_1: Transient students' standardized test scores would affect the mean of the ninth, tenth and eleventh grade standardized test scores.

Limitations

This study contained the following limitations:

1. The sample was limited to ninth, tenth and eleventh grade students at a high school in rural West Virginia who took the Stanford Achievement Test, April 1-3, 1998.
2. The study was limited to one year's scores.
3. No incentive, such as a report card grade, was offered to encourage the students to do well on the test.

Definition of terms

The following terms were defined as they applied within the context of the study:

Transient, transfer or mobile student

Transient, transfer or mobile were used interchangeably to refer to a student who changed schools one or more times within an academic year (Bayer, 1982).

Stable student

A stable student remained in the same class or classes the entire semester or year, as the class warranted (Bayer, 1982).

Systemic transfer

Systemic transfer is a phrase coined by A.E. Bayer to describe a student who moved on schedule according to the system: i.e. elementary school to middle school to high school; a desegregation move to another school; or a school closing /consolidation (Bayer, 1982).

Individual transfer

Individual transfer is a phrase coined by A.E. Bayer to describe a student who moved from one school to another for any reason other than a systemic one (Bayer, 1982).

Migrant student

Public Law 93-380 defined a migrant student as the offspring of migrant agricultural workers who has to move with his family from one school district to another during the school year so that the family might become employed in the agricultural and fishing industry or in related food processing (Miller & Cherry, 1991).

Homeless student

A student whose family lost its permanent housing and lived in a public shelter, with friends or other family members or in some other, less than adequate shelter (Dohrn, 1991).

Assumptions

The following assumptions were made for the study:

1. The sample was adequate in size.
2. The students were enrolled at the high school during the standardized testing period.
3. The testing instrument was valid.
4. The time frame was adequate.

Importance of the study

This study was important to determine if transience affected overall school performance on the state mandated standardized testing in an 1100 student high school. The school itself is located in a small city in a predominately rural state. Much research has been carried out around large urban and suburban areas (Beck, et al., 1997; Brown, 1996; Cleveland Public Schools, 1989; Ingersoll, et al., 1989; Kerbow, 1996; Paredes, 1993; Vail, 1996), but little research was centered around a smaller, more rural population center (Adduci, 1990; Miller & Cherry, 1991).

CHAPTER TWO

LITERATURE REVIEW

This literature review will focus on school-aged children, kindergarten through grade 12, who change schools one or more times during the academic year and the emotional and academic effects of transition upon these children. The reasons for transfer are many (Hodges, 1986; Jalongo, 1985; Khlief, 1978; King-Stoops, 1980; Miller & Cherry, 1991) , as are the corresponding effects (Adduci, 1990; Adler, 1975; Blakeman, 1993; Dohrn, 1991; General Accounting Office, 1994; Hauseman & Reed, 1991; Ingersoll, 1988; Steel, 1994).

Questions explored include:

Who moves?

What are the reasons for student mobility?

What is the impact of mobility upon the student academically?

What is the impact of mobility upon the student emotionally?

What is the impact of mobility upon schools?

What is the impact of mobility upon teachers and teaching?

What intervention measures have been proposed?

What are the public policy implications?

Americans are a mobile people. The United States General Accounting Office Report (1996) indicated that annually one fifth of all Americans move. Eight million school-aged children move each year. School-aged children who move can be labeled or defined as "transient" if they move even once to a new community and a new school, but particularly those children who make repeated moves (Allan & Bardsley, 1983). Yet,

> A widely held view in education is that the longer a student is exposed to a program of instruction, the better the chance that the student will learn and acquire the skills necessary to succeed in society and the work force. In other words, schools need a consistent and continuous period of instruction before they can have a significant impact upon students. (Ligon & Paredes, 1992, p.1).

THE MOVERS

Bayer (1982) categorized types of student mobility in his pioneering work on the subject. Bayer's typology related to the mobile student's academic achievement in which he proposed two major types of moves: systemic and individual. Systemic moves include prescribed moves, as from elementary to middle school. Every student eventually becomes a systemic mover. Individual moves include all others: moves out of district whether two blocks or two hundred miles, magnet school enrollment, military moves, et cetera (Bayer, 1982). In their study, Warren-Sohlberg and Jason (1992) found a correlation between school

transitions and academic success. Students who experienced a systemic move performed better academically than those who transferred individually; but all transfer students' grade point averages dropped the first grading period after the move regardless of the reason for moving (Warren-Sohlberg & Jason, 1992).

The Chicago, Illinois public schools as well as other urban area school systems are reeling from student instability. According to Kerbow (1996) more than 86 percent of all transfers in Chicago over the summer of 1993 were from one Chicago public school to another. During the academic year, 82 percent of all transfers were within Chicago also. Instability in the Chicago school system as well as other urban areas was not caused by an influx of new students, but from students moving from one local attendance area to another.

Mobile students tended to come from impoverished families as well as from families with non-traditional household compositions. They were potentially disadvantaged not only by an inconsistent educational experience due to frequent transfer, but also by the lack of resources in their home (Kerbow, 1996).

Like Kerbow's (1996) Chicago study, the Austin Public Schools study found black students to be the most mobile, Hispanic students fairly mobile, while white students in general the least mobile. Low-income students of any race comprised the most highly mobile category (Ligon & Paredes, 1992).

REASONS FOR STUDENT MOBILITY

Change in marital status

Divorce is a stressful event for children. Hodges (1986) noted the stress on children derived from parental conflict before, during, and after the divorce; parents' inability to offer emotional support to the children due to their own emotional turmoil; financial hardship after the divorce; and parental stress as it colored all interaction between parents and children. Two-thirds of children in the Wallerstein and Kelly (1980) study moved three or more times during the first three years after a divorce. In some families, a move was less disruptive and viewed more positively if it followed a remarriage by the custodial parent (Miller, 1991).

Divorce affects childhood development. Younger children are likely to act out aggression and exhibit other "acting out" behaviors while teenagers may exhibit withdrawal and depression (Hodges 1986). Children and teens may grieve over the loss of a parent and friends if they have to move, just as if a death had occurred (Lane & Dickey, 1988). To adolescents, their circle of friends is the most important support system available to them (Blakeman, 1993). These feelings of loss are intensified if a move is precipitated by divorce or separation of the parents (Neuman, 1988).

Migrant employment

Migrant children change schools on average three times per year. These children take three years to achieve learning levels non-migrant children average in a single year. On average, migrant students receive 7.7 years of schooling compared to 12.5 years of schooling for the general population of the United States. The dropout rate for migrant students is 50% (King-Stoops, 1980).

Migrant families come from diverse cultural backgrounds, often speak English as a second language, or not at all. They may have a permanent home that they return to or they may live a totally nomadic lifestyle (Miller & Cherry, 1991). Children of undocumented migrant workers who have come into this country illegally are the most under-served students of all migrant school children. Parental fears of deportation prevent these students from attending school or seeking available assistance (Miller & Cherry, 1991).

Job market fluctuations

The fluctuating job market coupled with the scarcity of adequate low-income housing has dislocated hundreds of thousands of households, translating into frequent moves for families. Often students attend four or more schools in a year (Larrick, 1992).

Dissatisfaction with housing

Urban housing is largely rental and may offer short-term lease agreements to the tenant. If either the landlord or the tenant poorly maintains the property, it is relatively easy to either evict the tenant or to move out at will, often only a few blocks but possibly to another school attendance district. If Social Services pay rent voucher money directly to tenants instead of landlords, often the money is kept and the tenant "skips out", again not far, but to another school attendance district (Vail, 1996).

Homelessness

The Department of Education (1991) estimates that more than 450,000 homeless children live in the United States.

> The acceptance of shelter accommodations is for most families a final and desperate act to keep their families together. Yet parents and children are humiliated for their efforts, infantalized, and all but stripped of their resourcefulness. Families and the women and children who lose their housing do not identify themselves publicly as homeless, furthering the invisible crisis.
>
> When a child has lost his or her permanent housing and experiences the stress of a family crisis, the additional loss of a familiar school and its context may well be devastating (Dohrn, 1991, pg.4).

So says Bernardine Dohrn concerning children of homeless families in her report for the Legal Assistance Foundation of Chicago (1991). Yet a basic

educational need for children, especially during a crisis period is continuity and stability in schooling (Dohrn, 1991).

Most school principals interviewed by Dohrn were unaware that homeless children attended their schools, when in fact they did; nor did they know the rights of these children spelled out in the McKinney Act as amended in 1990 by the United States Congress.

More than two-thirds of the homeless parents interviewed by Dohrn indicated they would rather their children had continued in their home school. None of the parents had been offered the choice of continued enrollment (McKinney Act, sec. 722 (e) (3) (A)) and transportation assistance (McKinney Act, sec. 722 (e) (1) (G) (I) (9)), none had heard of the McKinney Act (42 U.S.C. § 11431-11432), or had been informed by school or shelter personnel of options provided in the Act.

The cumulative effects of school transfers on homeless students contribute to underachievement, possibly being retained in a grade, loss of continuity in learning, negative attitude in the student's academic performance, school attendance, and general outlook. Reading and math achievement suffer dramatically as well for homeless children (Rafferty, 1989).

New immigrants

"The child who changes culture and country as well as residence is more than a 'new kid' at school; he or she is an expatriate" (Jalongo, 1994-1995, pg.81). Culture shock is very real, especially if a language barrier is also present. Some immigrant children come to the United States with the security of the family, but more and more orphaned or abandoned foreign nationals are being adopted by American families. For those children old enough to understand, cultural differences can be overwhelming at first (Jalongo, 1994-1995).

Military personnel

Military children are not negatively affected by relocation (Miller & Cherry, 1991). The move is expected and the family is stable and intact. A sense of community prevails as many other families are moved at the same time. The curriculum is similar if students are enrolled in military base schools. Schools that are near a military base have many dependents enrolled, so a continuity and camaraderie that is not a common experience other transfer students enjoy exists among new and established students. Finally, on-base recreational facilities are geared to offer immediate social opportunities for the families involved (Marchant and Medway, 1987).

Dissatisfaction with previous school

School moves tend to occur within localized geographic boundaries. The median distance that students move between schools is 2.4 miles. Families who move their children because of dissatisfaction with the previous school do not generally search far for a new location (Kerbow, 1996).

Corporate moves

The financial cushion associated with a corporate move helps make the transition smoother. Thought can be given to the choice of neighborhood and school setting. Although the student must re-establish in a new setting, the family is not generally in crisis, making the stress of the move itself the only obstacle to overcome (Miller & Cherry, 1991).

ACADEMIC IMPACT UPON THE STUDENT

The rate of transience in the schools has alarming implications for the growth and education of millions of children (Dohrn, 1991). Homelessness, especially moving from shelter to shelter, has created a major crisis for schools, parents, teachers, and the educational system (Dohrn, 1991). The sheer numbers of transient students compounded by the number of times many of these individuals change schools between kindergarten and twelfth grade has the potential for deep and pervasive consequences for the students involved and more

broadly for the classrooms and schools they attend (Kerbow, 1996). Students may experience learning difficulties simply because their new class is at a decidedly different point in the curriculum than their previous schools. (Kerbow, 1996). Classroom instructional routines are often interrupted. Teachers may be forced to repeat material already taught to accommodate the newly arrived student rather than provide new materials to the rest of the class (Lash & Kirkpatrick, 1990). Stable students are affected as the forward progress of their learning is interrupted by unnecessary review. In a highly mobile school, even those students who do not move may get instruction that is approximately a year behind that of students in more stable schools (Kerbow, 1996). High mobility classrooms are plagued by behavioral problems. Teachers must continually reestablish rules and procedures since the makeup of the class is fluid and the psychological rewards of teaching are diminished for the teacher. "Teachers spend a great deal of time getting to know their students and understanding their learning styles. But just when they begin to see success with a child, the child moves away." (Vail, 1996, pg. 22).

Students who transfer between schools may actually miss exposure to key concepts that are prerequisites for higher order skills. The consequences may grow as the student progresses through the grades (Kerbow, 1996).

The opportunity to learn depends upon the pace new information is introduced into the curriculum. Pace for the mobile student can be influenced by the new classroom setting or by numerous other variables. The opportunity to

learn may be accelerated or reduced depending upon the circumstance (Good & Marshall, 1984; Kerbow, 1996).

A smooth transition into a new classroom is often dependent upon proper group placement, yet records establishing educational background and achievement rarely arrive with the student. Group placement then becomes "guess work" until records arrive or until the student can be tested (Cornille, Bayer & Smyth, 1983; Kerbow, 1996; Vail, 1996).

EMOTIONAL IMPACT UPON THE STUDENT

Each student reacts to relocation differently, depending upon the individual and the circumstance that precipitated the move. For example, a move due to spousal abuse would be viewed differently from an expected military move. Even when a child perceives a move as generally positive, the necessary adjustments are disruptive and create stress (Jalongo, 1985).

Relocation has been described as a "crisis" event in which the individual faces a new, problematic situation. The individual finds that the current levels of coping skills are not adequate and in a crisis, anxiety and confusion replace the sense of well being (Hausman & Reed, 1991). The adolescent's stress is magnified by transition as the student is also coping with adolescent development

as well as a move. Also, friends are tied to the adolescent self-identity. Leaving friends behind creates a crisis of sorts, as does the perceived and actual "loss of control" of the adolescent's circumstances (Arbetter, 1991; Kyrios & Prior, 1990; Stroh & Brett, 1988). All children are affected by a move, including the friends left behind (Field, 1984). Young children fear separation and abandonment more than anything else, while teens stated the primary reason for attending school is to see their friends (Goodland, 1984; Wolman, 1978). Children experience moving as loss of their natural habitat (Gabarino, 1987). It is estimated that a child needs at least a year to fully adjust to a single move (Current Health, 1985). In so far as school adjustment, Cornille, Bayer and Smyth (1983) found that on average, the new student in class needs twenty-three days to feel comfortable with his new peers. That translates into more than a month in school. Academic adjustment is accomplished on average in seventeen days, or a little more than three weeks. This period of newcomership can last from a week to a month (Khleif, 1978). For the student who moves several times during a single year, the period of adjustment is unending.

To further highlight the emotional crisis for children who move one should consider the following contentions. Children who move often do not perform well academically (Kerbow, 1996). Children with low academic achievement tend to be less well liked and interact less positively with peers than high achievers (Jason, 1992). Children who do poorly in school withdraw or become

disruptive, behavior typically disliked by other children (Jason, 1992). Children who do poorly academically tended to have lower self-esteem and were less likely to take risks easily (Jason, 1992).

IMPACT UPON THE ACADEMIC ACHIEVEMENT OF THE SCHOOL

Six million American families relocate yearly, forcing teachers to deal with staggering student turnover rates, especially in urban schools. Turnover rates of 40%, 50%, 75%, or more are not unheard of (Larrick, 1992; Vail, 1996). Attempts to monitor school performance become meaningless if the student population tested one year has largely changed by the next (Evans, 1996).

> Having a highly transient student body places a school at a disadvantage as test scores and other indicators of success are evaluated by state and district officials. School standardized test averages for institutions with high numbers of mobile students are routinely misleading and typically low. Many individuals whose scores make up the composite score have been at the site for only a short period of time, and their performance on any sort of assessment cannot validly reflect the quality of the instructional program of the school where they happen to be on testing days (Beck, Kratzer, & Isken, 1997, p.345).

Although moving once or twice during the public school years may not be harmful, most research suggests that high mobility lowers student achievement, particularly when students are from low-income, less-educated families (Ascher, 1991; Brent & DiObilda, 1993; Cleveland Public Schools, 1989; Ingersoll, 1988; Lash & Kirkpatrick, 1990; Mehana & Reynolds, 1995; US Department of

Education Research and Improvement, 1996; U.S. General Accounting Office, 1994). Students who move frequently are at greater risk to develop learning disorders, to fail one or more grades, for frequently occurring behavioral problems, for growth or developmental delays (Wood, Halfon, Scarlata, Newacheck, &Nessim, 1993).

Conversely, students who follow the prescribed elementary, middle, high school sequencing of a school district are likely to graduate (Olkowski & Parker, 1992). The most mobile population, migrant students, has the highest school failure and dropout rate (Lunon, 1986; Ascher, 1991).

Specifically, the Ingersoll Study (1988) compared achievement levels of transient students to more stable students in the Denver Public Schools, a multiethnic, urban system of 60,000 students. Achievement levels of three continuing groups of stable students and two groups of mobile students were compared and analyzed. The achievement levels of the stable groups were consistently higher than the achievement levels of the transfer (mobile) students. Student socioeconomic status did not alter the outcome correlation (Ingersoll, 1988).

Studies conducted by Adduci, in a small New Jersey city near New York (1990), by Vincent Paredes in the Austin, Texas Independent School District (1993), and by Dolores A. Evans in suburban Chicago (1996) concluded that mobility did not lower student achievement in their samplings, but did indicate

that mobility was a factor that could negatively affect learning. In another study by Ingersoll, Scamman, and Eckerling (1989) that correlated student mobility and standardized test scores, variables such as ethnicity, socioeconomic status and family stress were "also highly related to achievement and to mobility." (Ligon & Paredes, 1992, pg. 3; Jalongo, 1995).

According to the Department of Education Office of Educational Research and Improvement, "Students who change schools frequently, particularly students from low income families, are absent more often, are less likely to perform well in school, and are more likely to leave school without graduating than those who change schools infrequently or not at all." (DOE/OER&I, 1996, pg.1).

Mobile secondary students were almost twice as likely to drop out of school as those who remain in one secondary school were likely to graduate (Brown, 1996). In fact, migrant students, the most mobile of all, rank among those with the highest school failure and dropout rate (Evans, 1996).

Dolores Evans cites a Chicago Tribune article entitled "School Statistics Can Be Misleading" in which the author, Professor Robert Meyer of the Harris School of Public Policy at the University of Chicago, suggested caution when making any judgments about school improvement based on standardized testing results. Professor Meyer found that individual Chicago schools were making actual improvements in student learning but those gains were obscured on the standardized tests by outside factors including student mobility. Meyer observed

that in some cases reported standardized test scores indicated declining student achievement when in fact the school was having a very positive impact (Bryk & Easton, Jan.12, 1994). "Thus, mobility can be viewed as having a negative impact on student achievement as well as having a negative impact on schools when reporting and comparing test results." (Evans, 1996, pg. 6).

IMPACT ON TEACHERS AND TEACHING

Integrating new students into an established classroom interferes with classroom instruction for the students who did not move. Time utilized for new material introduction is reduced, necessitated by review for new students to be brought into the learning stream, and by non-teaching management tasks (Evans, 1996). The pacing of instruction is slowed for all students in the class, both mobile and stable (Kerbow, 1996). As the composition of the class changes by gaining or loosing students, time must be spent getting to know new students needs. It also becomes difficult to tailor long-range plans for the class. For example, if a teacher attempts to coordinate instruction with the previous teacher, the students in the fall class may well be different from the students in the previous spring term (Kerbow, 1996). Additionally, if transfer records are not received in a timely fashion, placement is at best "guess work" until records arrive. Too often, students have moved on to yet another school before records catch up, if at all (Cornille, et al., 1983; Kerbow, 1996; Vail, 1996).

INTERVENTIONS

To ease the transition for a student leaving his or her class the sending school can allow the student time to say good-bye to friends and to allow the students staying behind time to say good-bye also. Both those who leave and those who stay grieve (Miller & Cherry, 1991).

A packet including informal records can be sent with the student to help the receiving school make an appropriate placement until the records arrive (Kerbow, 1996).

While not widespread (Bracey, 1991), some receiving schools have programs in place to welcome students, whether through the school counselor, the library or the principal. Parent education programs and handbooks that acquaint the parents with the new school as well as the effects of moving benefit the student as well.

Summer student orientations, welcome packets, informal tours, reception committees, coaching the entire class in how to welcome new students, classroom buddies, and tutoring are all useful initiatives to integrate the transfer student into the new setting (Ascher, 1991; Beck et al., 1997; Jalongo, 1995; Marlett, 1993; Miller & Cherry, 1991; Steele, 1994).

In addition to school-wide programs, a school community representative and social workers could reach out to acclimate the entire family into the new community (Steele, 1994). The high school library is a logical welcome center/

refuge for transfer secondary students (Pawlowski & Troutman, 1993). School counselors can be the vital first link in successful student integration into the new school setting (Blakeman, 1993). New students may exhibit aggression, withdrawal, over-talkativeness among other indicators of stress (Neuman, 1988). When the classroom teacher cannot handle the behavior, the counselor can intervene.

Interventions on behalf of the homeless student could include a structured, secure, classroom setting; providing a private space for the child to store his things; and labeling the child's belongings, especially those things going with the child overnight. The teacher could break work into small manageable sections to insure success and provide outlets for physical and emotional energy. Training workshops dealing with homeless children would be valuable for the teacher (Gewirtzman & Fodor, 1987).

Practical help for the teacher might include strategies for quick, preliminary assessment of a new student's ability and strategies to develop a flexible curriculum. Teachers should be provided with professional development course training so that they are prepared to face the challenges inherent in both fluid class composition and the emotional turmoil of loosing students (Beck, et al., 1997).

POLICY IMPLICATIONS

Develop policies to decreasing the level of mobility between schools in the same system

Policies are needed to decrease the level of mobility between schools in the same district. Since moves are often local, flexibility in the attendance areas would allow students to remain in the same school even though the family changed dwellings (Kerbow, 1996; Vail, 1996). Also, some urban areas have a local public housing policy that allow families to live in public housing rent free for a limited period of time. Allowing families to live rent-free for the duration of the school year would dramatically cut mobility during the school year (Pogrow, 1992).

Develop a local, flexible transportation policy

Policies should be developed to provide transportation from each single neighborhood to various schools within the district. When the move is within an urban area, the cost of providing transportation to the home school is minimal compared to the cost of remediation (Kerbow, 1996; Vail, 1996).

Develop policies to draw families into open and personal ties with the school

Policies should be developed to draw entire families into close, personal ties to the school, creating a vested interest. Then, when conflicts arise, it may be more possible to reach a satisfactory solution (Kerbow, 1996; Steele, 1994).

Encourage schools and local businesses to create "community," where parents and children can sense pride and belonging (Vail, 1996).

Enforce the McKinney Act provisions

As passed by the Congress of the United States, the McKinney Act (1990) assures that each homeless child be provided a free, appropriate public education in the mainstream school environment (sec. 721(1)). The law requires revision of residency requirements for homeless children. The law recognizes the need for continuity and stability in the child's education, provides that the child can remain in the home school (sec. 722 (e) (3) (B)) with transportation provided free to the child (sec. 722 (e) (1) (G) (I) (9)), or the child may attend a local school near where he is staying, whichever is in the best interest of the child (722 (e) (3) (B)). The law requires that states and local educational agencies make all necessary records available to the new school in a timely manner including immunization and academic records, birth certificates and past evaluations (sec. 722 (e) (6)), and to review, revise and remove any policy that might act as a barrier to the enrollment of a homeless child in school (sec. 722 (e) (9)). Further, a liaison is to be designated to ensure that the homeless child is enrolled and succeeds in school and receives all services including health, dental, and mental health services as needed (sec. 722(e) (8)). McKinney provides for homeless children to participate

in food programs and before and after school care programs (sec. 722 (e) (1) (D) (E)) as well.

Mount an aggressive campaign to hold students in their current school

Inform parents of the educational harm in moving their children when it is not absolutely necessary. Involve parents in the school to develop a vested interest in the school's success and especially the school's success with their child (Kerbow, 1996; Vail, 1996).

Develop initiatives to mediate the negative impact of student mobility on learning

Support school improvement efforts in general (Kerbow, 1996). Interventions listed previously could be expanded, particularly year-round schooling for some students. In Buena Vista, Virginia, low-achieving students are required to attend year-round school. Currently, 1.6 million students attend 2,200 year-round schools. Four quarters are scheduled with three-week recesses between terms. Students enrolled in Buena Vista's pilot program, are transported to the school no matter where in the county the child moves, thus reducing mobility. The county hopes to expand the program to become a year-round magnet school (O'Connor, 1996). Similar initiatives have been established in Anaheim and Santa Ana, California to accommodate students transferring mid-year (Vail, 1996).

Develop a portfolio for the student to carry to the new school

Each student who moves can carry an informal portfolio to his or her new school including records and classroom placement information (Kerbow, 1996).

Develop standardized curriculum

A standardized curriculum should be adopted within school districts as well as between districts that are plagued with large numbers of student transfers. For example, a thoroughly phonics-based reading program might exist in one district school while a neighboring school has a whole-language program. According to Kerbow, an occasional exchange of students between programs may be unproblematic. If the two schools experience multiple exchanges, the stress on the students as well as the individual programs might be quite troublesome, necessitating the complex work of restructuring a district or even a region to accommodate transience (Kerbow, 1996).

The American Federation of Teachers goes so far as to suggest a national curriculum, with the same texts in classrooms across the nation. The idea has not been embraced by legislators at the national level, but locally, some districts have standardized curriculum as in East Hartford, Connecticut (Vail, 1996).

Develop a national tracking system

Make student records available on-line through a secured Internet system, so schools can readily call up records for new enrollees (Vail, 1996; New Generation, 1996). The New Generation System is in place to transfer record between schools for the children of migrant workers and the concept could be expanded to include all students nationwide (New Generation, 1996). As this and other on-line tracking systems become available nationally, issues such as student privacy and school accountability for student records must be addressed. (Ascher, 1991)

Develop multiage classrooms

Multiage classrooms might be used to successfully remediate transient students without the stigma of retention (Vail, 1996). Several age levels and grade levels of children are blended into a single classroom so a variety of ages receive similar instruction. Ideally, students remain in multiage until the material is mastered (Vail, 1996).

INITIATIVE AMALGAMATION

Interestingly, an amalgamation of many of these initiatives has been successfully forged in Rochester, New York. Businessman David Schuler helped to lead his community and its schools back to stability.

Initially, Schuler was troubled by the large tenant turnover in his property and others nearby. He discovered the local elementary school had a staggering 72 percent student turnover rate. Upon investigation, Schuler found most tenants were moving only 15 to 20 blocks away, but to other attendance districts within Rochester. "People would leave in the middle of the night.... They were moving to escape something." said Schuler (Vail, 1996, pg. 23).

Schuler uncovered several entwined reasons for the area's transience. Social Services offered cash payment to welfare clients in lieu of direct rent payment to the landlord, if the client chose it

This practice encouraged the client/tenants to keep the money and not pay the rent. Eviction or "skipping out" followed with regularity. Disputes with landlords could be difficult to resolve, leading to eviction or a move of choice.

Some parents moved because of unresolved problems at school. Some parents did not know the extent their child was hurt by constant moving (Kerbow, 1996; Vail, 1996).

Armed with facts, Schuler and others from the Apartment Owners Association of Rochester (AOAR) convinced social services to drop the option of

cash payment in favor of direct payment of rent vouchers to landlords. This immediately stabilized the living accommodations of many families. The AOAR urged landlords to maintain their buildings and to enter into longer lease agreements, benefiting both the landlord and the tenant. Signs were posted showing the attendance area schools. Pamphlets were distributed to tenant/parents explaining the effects of frequent moving. Landlord-tenant dispute resolution offices, staffed by AOAR members and community volunteers, were set up in the schools. If families decided to move, the volunteers helped them find housing within the same attendance area.

Schuler encouraged the local school to market itself to the community, to create a vested interest in the community for the school to succeed. Community members voted on school mascot and colors, which helped to create a genuine sense of community ownership of the school. Finally, Schuler encouraged the school and local businesses to create a partnership for change.

With hopes of duplicating his success elsewhere, Schuler has founded a non-profit organization, the Center for School and Community Development to help other communities encourage stable schools and keep families in the same place (Schuler, 1990; Vail, 1996).

CONCLUSION

As politicians and parents push for school reform, some in the education community contend student transience makes reform impossible. Schools can not be held accountable for the academic performance of students they have not had a chance to teach (Vail, 1996; Beck, et al., 1997). Student transience must be identified as a legitimate problem not only affecting the mobile students themselves, but the stable students, teachers, the academic achievement of the entire school, and the community at large. Policy initiatives then can be implemented to address the problems. L. Scott Miller, an educational consultant interviewed by Kathleen Vail, assistant editor of The American School Board Journal (Vail, 1996, pg. 24) contends that "as attention is focused on minority achievement, mobility will come up again and again as a factor for failure." Miller is convinced that students must be allowed to stay in one place or the students and the schools will continue to suffer. "If you want these kids to perform like middle-class kids, you must treat them like middle-class kids. Says Miller, "Middle-class kids don't go to school where everyone is in motion."

CHAPTER THREE

METHOD

Subjects

The subjects for the study included 204 ninth grade students, 219 tenth grade students, and 217 eleventh grade students from a new, well equipped, magnet high school located in Harrison County in north central West Virginia. One hundred fifty two of these students transferred into the school for grades nine through eleven between June 1997 and the April 1998 testing date. The school's total enrollment for ninth, tenth and eleventh grades was approximately 750. Fully 20% of that number transferred into the school during the 1997-1998 school year. Only 640 students completed the Basics Skills Battery of the Stanford Achievement Test. The study focus was on the SAT scores of these 640 students.

The high school, located in Clarksburg, West Virginia, drew from a combined Clarksburg/Nutter Fort urban population of 19,854 people according to the 1990 census. The school had an open enrollment policy and drew some students from other attendance areas in Harrison County and surrounding counties.

Design

This research was quasi-experimental. The groups/grade level configurations were predetermined by school policy as to what students were tested. A total of 640 students were given the test in its standard format: 309 boys and 331 girls.

Procedure

The data were derived from the results of the Stanford Achievement Test (SAT), form S, administered by the high school faculty on April 1-3, 1998. The West Virginia Department of Education mandated testing for all students in West Virginia unless excused from standard testing by prior Individual Educational Plan (IEP) arrangement.

Permission was necessary to access the school's SAT scores as well as the list of students who had transferred into the school after the end of the spring term, 1996-1997 or entered at any time during the1997-1998 year prior to testing. Permission was obtained from both Harrison County Schools via a letter to Mr. Carl Friebel, administrative head of the Department of Planning, Research and Evaluation for Harrison County Schools and the study high school via a letter to the principal, Mr. Leon Pilewski. Copies of both the letters and their replies are found in Appendix A.

During the summer of 1998 the 640 test scores were accessed from SAT records sent to the high school. The West Virginia Department of Education was responsible for scoring the tests.

Test data used in this study included Reading Vocabulary, Reading Comprehension (also reported as Total Reading), Math, Language Mechanics and Language Expression (also reported as Language). These five areas made up the Basic Skill Battery of the test. Scoring was the same for all grades. Possible

correct scores for each battery section were:

Reading Vocabulary	30 Items Correct
Reading Comprehension	54 Items Correct
(Total Reading	84 Items Correct)
Math	48 Items Correct
Language Mechanics	24 Items Correct
Language Expression	24 Items Correct
(Total Language	48 Items Correct)
Total Basic Skills Battery	180 Possible Items Correct

The Basic Skills Battery was selected as the measure for the study. The West Virginia Department of Education also used the SAT as the standard measure in determining the success of each county school system in its mission to educate West Virginia's students.

Individual student percentiles presented a skewed picture of the test data. A more realistic representation of actual student achievement was derived by dividing the number of questions answered correct by the total number of questions in the Basic Skills Battery. The subsequent answer was a straight percentage based on 100. Each percentage was carried to the fifth place after the decimal and then rounded to two places. Individual scores were arranged by class and again in categories: transfer and non-transfer.

A mean score was averaged for grade levels using the scores of every student in that level that took the test. Next, the scores for each student who had transferred into the school after spring term 1997 were removed and the remaining non-transfer students' scores were averaged. Different combinations of this data were applied to the appropriate t test formula.

Instrumentation

The Stanford Achievement Test, form S, 1998 edition was used. To quantify the raw data, descriptive statistics were derived from the data and comparisons were made using the hypothesis test for the mean of two independent samples (t-test).

CHAPTER FOUR

RESULTS

Conversion of Data

The schools total enrollment for ninth, tenth and eleventh grades was approximately 750 students. Twenty percent of that number transferred into the school during the 1997-1998 school year. The influx of students into the study school is described in Table 1. The new students are categorized according to the location from which they transferred. The parenthetical numbers indicate the total number of students entering the study school. The non-parenthetical number indicates the number of those students who were tested.

Table 1

(Total Transfer Students) /Transfer Students Tested

(152 students transferred into the school) / 76 tested

9th, 10th, 11th Grades

Group	Private	In-County	Out-County	Out-State	Out-US
9th	(9) 7	(32) 15	(13) 4	(4) 3	(0) 0
10th	(5) 0	(19) 9	(10) 5	(5) 3	(0) 0
11th	(12) 9	(27) 8	(7) 5	(3) 2	(6) 6
All	(26) 16	(78) 32	(30) 14	(12) 8	(6) 6
% tested	61.53%	41.02%	46.67%	66.67%	100.00

The raw scores for the Basic Skills Battery of the SAT were converted into percentages for each student tested by dividing the reported number of correct items by the number possible (x/180). The students' scores may be found in Appendix B. Each student's score was categorized by grade, and within each grade further categorized as a transfer student's score or non-transfer student's score. Transfer student's scores may be found in Appendix C. The resultant percentages were used to perform a t-test to check for the homogeneity of two groupings within each grade. In order to find t, the following descriptive statistics were obtained for each grouping: sample size, the mean (x), standard deviation (s), variance (s^2), and range. The computer performed the actual calculations using the Statdisk Elementary Statistics Program by Mario F. Triola (Password).

Table 2 provides the results of this treatment of the raw data. Sample size was large in all but the transfer categories, yet all nine categories had a surprisingly similar mean. At every grade level the mean of non-transfer students was slightly higher than the mean of the transfer students. The range again was similar in all but one category, varying for the most part 30 to 35 points above or below the mean. Standard deviations, the average that sample scores vary from the mean, were very much the same for all groups. The largest differences were found in the transfer groups. Variance magnified these differences by squaring the standard deviation values.

Table 2

Sample Descriptive Statistics Results

Group	Sample	Mean	Variance	St. Dev.	Range
9 All	204	64.570	190.11	13.788	66.110
9 No Trans	172	65.120	184.68	13.620	65.550
9 Transfers	32	62.117	215.69	14.686	61.110
10 All	219	62.113	200.99	14.177	67.770
10 No Trans	200	62.214	196.22	14.008	67.770
10 Transfers	19	61.053	263.56	16.235	59.440
11 All	217	61.055	177.90	13.338	70.000
11 No Trans	189	61.144	191.14	13.825	70.000
11 Transfers	28	60.456	91.85	9.584	40.550

Hypothesis Testing

In order to analyze the data in Table 2 to determine if transient students' standardized test scores did affect the mean of the ninth, tenth, or eleventh grade standardized test scores, six t-tests were performed. These hypothesis tests for the mean of two independent samples (two-tailed t-test) provided all of the following results: test statistic t, critical t, and p value.

Ninth Grade Hypothesis

The first t-test statistically compared the scores of all ninth grade non-transfer students to the scores of all 9th grade transfer students. The level of significance used in this study was alpha = .05. Since the score obtained on the t-test was t = 1.0740, less than the critical t of 1.9600, the null hypothesis that transient students' standardized test scores did not affect the mean of the ninth grade standardized test scores was accepted. The p-value of 0.2828 indicated a 28.28% probability the study findings were random. These findings are far beyond the predetermined .05 level of significance established at the beginning of the study.

The second t-test statistically compared the scores of the entire ninth grade with the scores of just the ninth grade non-transfer students. The level of significance was .05. The score obtained on the t-test was t = 0.3879, less than the critical t of 1.9600. The p-value of 0.6981 or 69.81% probability of randomness greatly exceeded the .05 level. Thus, both tested comparisons failed to reject the null hypothesis that transient students' standardized test scores did not affect the mean of the ninth grade standardized test scores.

Table 3

Results of Hypothesis Tests for the Mean of Two Independent Samples

9thGrade

Group	Sample	Mean	St Dev	t	Critical t	p-Value
9 No Transfers	172	65.120	13.620			
9 Transfers	32	62.117	14.686			
Both				1.0740	1.9600	0.2828
9 All	204	64.570	13.788			
9 No Transfers	172	65.120	13.620			
Both				0.3879	1.9600	0.6981

Tenth Grade Hypothesis

The first t-test statistically compared the scores of all 10th grade non-transfer students to the scores of all 10th grade transfer students. The level of significance used in this study was alpha = .05. Since the score for this comparison obtained from the t-test was t = 0.3404, less than the critical t of 1.9710, the null hypothesis that transient students' standardized test scores did not affect the mean of the tenth grade standardized test scores stood. The p-value of 0.7339 indicated a 73.39% probability the study findings were random. These findings were far beyond the predetermined .05 level of significance established

for the study.

The second t-test statistically compared the scores of the entire tenth grade class with the scores of just the tenth grade non-transfer students. The level of significance was .05. The score obtained on the t-test was t = 0.0130, again less than the critical t of 1.9600. The p-value was 0.9896 indicating a 98.96% probability that these results were random. These findings greatly exceeded the .05 level of acceptability. Thus, both tested comparisons failed to reject the null hypothesis.

Table 4

Results of Hypothesis Tests for the Mean of Two Independent Samples

10th Grade

Group	Sample	Mean	St Dev	t	Critical t	p-value
10 No Transfers	200	62.214	14.008			
10 Transfers	19	61.053	16.235			
Both				0.3404	1.9710	0.7339
10 All	219	62.113	14.177			
10 No Transfers	200	62.214	14.008			
Both				0.0130	1.9600	0.9896

Eleventh Grade Hypothesis

The first t-test statistically compared the scores of all 11th grade non-transfer students to the scores of all 11th grade transfer students. The level of significance used in this study was alpha = .05. Since the score for this comparison obtained from the t-test was t = 0.3321, less than the critical t of 2.0518, the null hypothesis that transient students' standardized test scores did not affect the mean of the eleventh grade standardized test scores was accepted. The p-value of 0.7424 indicated a 74.24% probability the study findings were random. These findings were far beyond the predetermined .05 level of significance established at the beginning of the study.

The second t-test statistically compared the scores of the entire eleventh grade class with the scores of the eleventh grade non-transfer students. The level of significance was .05. The score obtained on the t-test was t = 0.0658, again less than the critical t of 1.9600. The p-value of 0.9476 or a 94.76% probability that these results were random greatly exceeded the .05 level of acceptability. Thus, both tested comparisons failed to reject the null hypothesis.

Table 5

Results of Hypothesis Tests for the Mean of Two Independent Samples

11th Grade

Group	Sample	Mean	St Dev	t	Critical t	p-value
11 No Transfers	189	61.144	13.825			
11 Transfers	28	60.456	9.583			
Both				0.3321	2.0518	0.7424
11 All	217	61.055	13.338			
11 No Transfers	189	61.144	13.825			
Both				0.0658	1.9600	0.9476

Since all six t-test comparisons failed to reject the null hypothesis that transient students' scores did not affect the mean of the ninth, tenth, or eleventh grade standardized test scores, there was no purpose in comparing the combined mean scores of the entire tested populations.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to examine the effect of transfer students' standardized test scores on the total standardized test scores of a school. Two different comparisons were used to analyze the data for each class:

1. The entire class mean was compared to the mean of the non-transfer students. Using a t-test for analysis no significant difference was found between the two means.

2. The mean of the non-transfer students was compared to the mean of the transfer students. Using a t-test for analysis no significant difference was found between the two means.

The groups used in this study were the ninth, tenth, and eleventh grade classes at a new high school in Clarksburg, West Virginia. The study was conducted in the spring of 1998. The groups consisted of 204 ninth grade students, 219 tenth grade students, and 217 eleventh grade students.

The Basic Skills Battery scores of the SAT administered in April, 1998 were used as raw data to determine if there was any significant difference in the achievement of the two groups, transfer and non-transfer, by performing t-tests. At the .05 level of significance there was no significant difference in the groups.

Conclusions

There have been various studies conducted on the effects of transfer students on the classroom but few on transfer students' effects on the standardized test results for a school, especially in a rural area. The results of this study seemed to indicate that there was no significant effect, but that was possibly because only 50% of the students who transferred into the subject school actually took the SAT. The other 50% had moved to yet another school by test time. The transfer students' mean may also have been high since the school is new and serves as a magnet center, attracting students desiring higher level classes not offered in all schools. The school's open enrollment policy allowing students from surrounding counties admission, might have effected the mean. Also, the school hosted twelve foreign exchange students during 1997-1998. Six of the exchange students were in eleventh grade. All six of the exchange students took the SAT.

Recommendations

The following recommendations are made for any further study:

1. Perform the study using scores from other area high schools that are not magnet centers.

2. Using hypothesis means testing, compare other Harrison County high schools' standardized test scores with those of this study.

3. Study a specific set of transfer students' (i.e. institutionalized, multiple transfers in-county, military dependent, etc.) standardized test scores from

kindergarten through eleventh grade to ascertain pattern or change.

4. Study the socioeconomic situation of students who transfer into this school in order to address their particular educational needs.

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APPENDIX A

Rt. 3 Box 760
Clarksburg, WV 26301
May 19, 1998

Mr. Friebel,

To fulfill the requirements for a Master's Degree program at Salem Teikyo University, I am preparing a thesis studying the effect of student transfers into a school on the overall achievement of that school as measured by standardized testing. Specifically, I wish to determine the impact that transfer students have on the overall SAT scores at Robert C. Byrd High School. To do this I need permission to access the current year's SAT scores for the ninth, tenth and eleventh grades and a listing of all students in those grades who transferred into the school after the first school month of the 1997-1998 academic year. I will make my findings available for your use after my study is complete.

I am employed by the Harrison County Board of Education as a teacher at Washington Irving Middle School.

Sincerely,

Carolyn S. Hill

ROBERT E. KITTLE
Superintendent

HARRISON COUNTY SCHOOLS

408 E. B. Saunders Way
Post Office Box 1370
Clarksburg, West Virginia 26302-1370
(304) 624-3325

BOARD OF EDUCATION
PETER J. CONLEY, *President*
A. GARRETT SNYDER, *Vice President*
WILSON CURREY
DOUG GRAY
W. D. PRITCHARD

May 27, 1998

Ms. Carolyn S. Hill
Rt. 3, Box 760
Clarksburg, WV 26301

Dear Ms. Hill,

Thank you for your letter of May 19 in which you outlined your desire to conduct a research project for completion of your Masters degree from Salem-Teikyo University. Requests such as yours require special consideration since you are intending to use student data in your research.

In your letter there was no mention about how confidentiality of student data will be maintained. Therefore, before granting permission for conducting your study, I need to have an assessment of how confidentiality will be maintained along with a written assurance from you that the following terms will be met:

1. that student data be accessed only through the principal at Robert C. Byrd High School, or his designee,

2. that all student data will be kept confidential,

3. that all data collected be expressed as group data and that no individual data be reported, and

4. that we have the option, at any time, to rescind permission to conduct your project should proper confidentiality fail to be maintained.

You also need to understand that once permission is granted from this office for your research project, participation is ultimately at the discretion of Mr. Leon Pilewski, principal of Robert C. Byrd High School.

In your letter, please provide me with the name, address, and phone number of your advisor at Salem-Teikyo University for my records.

I appreciate your willingness to meet our standard requirement of providing my office with a copy of your research paper immediately upon its completion.

Upon receipt and review of the above, I will be most happy to give further consideration to your request. I shall await hearing from you.

Sincerely,

Carl H. Friebel, Jr.
Administrative Assistant
Planning, Research & Evaluation

CHF/tih

Rt. 3, Box 760
Clarksburg, WV 26301
June 3, 1998

Carl H. Friebel, Jr.
Harrison County Schools
PO Box 1370
Clarksburg, WV 26301

Dear Mr. Friebel

Thank you for your timely reply as to the possibility of using SAT scores from Robert C. Byrd for analysis in my Master's Thesis. I have received permission from Mr. Leon Pilewski, principal of Robert C. Byrd to use student data contingent upon your approval. I will access the information for Byrd through the school and only in the manner and the place directed by Mr. Pilewski. I will keep the information confidential as a matter of personal integrity. So far as my thesis is concerned, blind data is all that is required. Students' names will not appear in any phase of the paper's preparation. I also understand that your permission can be rescinded at any time.

My advisor at Salem-Teikyo University is:

Dr. Eva G. van der Giessen
Education Department
Salem-Teikyo University
Salem, WV 26426

I hope I have answered all of your questions.

Sincerely

Carolyn S. Hill

ROBERT E. KITTLE
Superintendent

HARRISON COUNTY SCHOOLS

408 E. B. Saunders Way
Post Office Box 1370
Clarksburg, West Virginia 26302-1370
(304) 624-3325

BOARD OF EDUCATION
PETER J. CONLEY, *President*
A. GARRETT SNYDER, *Vice President*
WILSON CURREY
DOUG GRAY
W. D. PRITCHARD

June 4, 1998

Ms. Carolyn S. Hill
Rt. 3, Box 760
Clarksburg, WV 26301

Dear Ms. Hill,

Thank you for your letter of June 3 in which you satisfactorily addressed my questions about how confidentiality will be maintained during your research project.

Given the assurances that we have established, I am happy to grant permission for you to conduct your research project at Robert C. Byrd High School. I am also pleased to learn that Mr. Leon Pilewski, principal of Robert C. Byrd High School, has agreed to facilitate your research request.

Please let me know if there is any way that my office might be of assistance, and best wishes for success with your research project.

Sincerely,

Carl H. Friebel, Jr.
Administrative Assistant
Planning, Research & Evaluation

cc: Mr. Richard Drummond
Mr. Leon Pilewski

CHF/tih

Rt. 3 Box 760
Clarksburg, WV 26301
May 19, 1998

Mr. Leon Pilewski
Robert C. Byrd High School
Eagle Way
Clarksburg, WV 26301

Mr. Pilewski,

To fulfill the requirements for a Master's Degree program at Salem Teikyo University, I am preparing a thesis studying the effect of student transfers into a school on the overall achievement of that school as measured by standardized testing. Specifically, I wish to determine the impact that transfer students have on the overall SAT scores at Robert C. Byrd High School. To do this I need permission to access the current year's SAT scores for the ninth, tenth and eleventh grades and a listing of all students in those grades who transferred into the school after the first school month of the 1997-1998 academic year. I will make my findings available for your use after my study is complete.

I have requested permission from Carl Friebel at the Harrison County Board of Education Office as well.

I am employed by the Harrison County Board of Education as a teacher at Washington Irving Middle School.

Sincerely,

Carolyn S. Hill

ROBERT C. BYRD HIGH SCHOOL
Office of the Principal
One Eagle Way
Clarksburg, West Virginia
26301

June 8, 1998

Carolyn S. Hill
Route 3, Box 760
Clarksburg, WV 26301

Dear Ms. Hill:

Thank you for your letter of May 19, 1998. Permission is granted for you to study student transfers and the effect on overall school achievement as measured by standardized tests. Please make all necessary arrangements with our guidance counselors Mrs. Altman and Mr. Nadelli.

Thank you for your request. I will be most interested in the results of your study. Best wishes.

Sincerely,

Leon E. Pilewski
Principal

LEP/lg

West Virginia Department of Education
Statewide Assessment Program
General Interpretation Guidelines

The Stanford Achievement Test, Ninth Edition provides a measure of student achievement. However, it should not be viewed as the only indicator of student performance. Scores from the SAT-9 provide a picture of student performance at a particular time and under a given set of conditions.

Nationally-normed achievement tests such as the SAT-9 generate scores that can be used for limited comparisons among student groups. Students who took the test are compared to a sample of students who took the test in 1995-96 as part of a "norming" procedure.

The most commonly reported scores from the SAT-9 are "national percentiles" which indicate how well our current students performed in comparison to the 1995-96 norm group. The national percentile indicates the percent of students in the original norm group who obtained scores lower than the current group of students. For example, if a group of sixth grade students score at the 55th percentile in science, then this group of students has scored higher than 55 percent of those students who took the sixth grade science test as part of the 1995-96 norm group.

NOTE: Percentiles are not interval data and therefore are susceptible to distortion if mathematical operations (addition, subtraction, multiplication, division) are attempted on them.

APPENDIX B

SAT 9th Grade Basics Skills Battery

Total Reading, Language, and Math

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
1	84	180	46.66667	46.67
2	157	180	87.22222	87.22
3	116	180	64.44444	64.44
4	120	180	66.66667	66.67
5	138	180	76.66667	76.67
6	139	180	77.22222	77.22
7	118	180	65.55556	65.56
8	127	180	70.55556	70.56
9	136	180	75.55556	75.56
10	88	180	48.88889	48.89
11	118	180	65.55556	65.56
12	103	180	57.22222	57.22
13	86	180	47.77778	47.78
14	106	180	58.88889	58.89
15	133	180	73.88889	73.89
16	49	180	27.22222	27.22
17	138	180	76.66667	76.67
18	100	180	55.55556	55.56
19	115	180	63.88889	63.89
20	130	180	72.22222	72.22
21	114	180	63.33333	63.33
22	109	180	60.55556	60.56
23	104	180	57.77778	57.78
24	119	180	66.11111	66.11
25	80	180	44.44444	44.44
26	103	180	57.22222	57.22
27	65	180	36.11111	36.11
28	109	180	60.55556	60.56
29	120	180	66.66667	66.67
30	104	180	57.77778	57.78
31	134	180	74.44444	74.44
32	82	180	45.55556	45.56
33	84	180	46.66667	46.67
34	76	180	42.22222	42.22
35	111	180	61.66667	61.67
36	131	180	72.77778	72.78
37	91	180	50.55556	50.56
38	145	180	80.55556	80.56
39	88	180	48.88889	48.89
40	150	180	83.33333	83.33
41	135	180	75.00000	75.00

SAT 9th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
42	144	180	80.00000	80.00
43	120	180	66.66667	66.67
44	71	180	39.44444	39.44
45	71	180	39.44444	39.44
46	124	180	68.88889	68.89
47	133	180	73.88889	73.89
48	157	180	87.22222	87.22
49	111	180	61.66667	61.67
50	139	180	77.22222	77.22
51	68	180	37.77778	37.78
52	81	180	45.00000	45.00
53	131	180	72.77778	72.78
54	138	180	76.66667	76.67
55	161	180	89.44444	89.44
56	105	180	58.33333	58.33
57	87	180	48.33333	48.33
58	149	180	82.77778	82.78
59	116	180	64.44444	64.44
60	133	180	73.88889	73.89
61	112	180	62.22222	62.22
62	60	180	33.33333	33.33
63	163	180	90.55556	90.56
64	135	180	75.00000	75.00
65	131	180	72.77778	72.78
66	80	180	44.44444	44.44
67	132	180	73.33333	73.33
68	140	180	77.77778	77.78
69	105	180	58.33333	58.33
70	123	180	68.33333	68.33
71	155	180	86.11111	86.11
72	133	180	73.88889	73.89
73	95	180	52.77778	52.78
74	128	180	71.11111	71.11
75	130	180	72.22222	72.22
76	147	180	81.66667	81.67
77	108	180	60.00000	60.00
78	79	180	43.88889	43.89
79	80	180	44.44444	44.44
80	159	180	88.33333	88.33
81	110	180	61.11111	61.11
82	109	180	60.55556	60.56
83	129	180	71.66667	71.67
84	146	180	81.11111	81.11

SAT 9th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
85	145	180	80.55556	80.56
86	105	180	58.33333	58.33
87	138	180	76.66667	76.67
88	98	180	54.44444	54.44
89	158	180	87.77778	87.78
90	133	180	73.88889	73.89
91	107	180	59.44444	59.44
92	135	180	75.00000	75.00
93	152	180	84.44444	84.44
94	125	180	69.44444	69.44
95	132	180	73.33333	73.33
96	129	180	71.66667	71.67
97	142	180	78.88889	78.89
98	117	180	65.00000	65.00
99	113	180	62.77778	62.78
100	114	180	63.33333	63.33
101	115	180	63.88889	63.89
102	109	180	60.55556	60.56
103	167	180	92.77778	92.78
104	117	180	65.00000	65.00
105	95	180	52.77778	52.78
106	120	180	66.66667	66.67
107	121	180	67.22222	67.22
108	117	180	65.00000	65.00
109	74	180	41.11111	41.11
110	140	180	77.77778	77.78
111	112	180	62.22222	62.22
112	91	180	50.55556	50.56
113	149	180	82.77778	82.78
114	109	180	60.55556	60.56
115	94	180	52.22222	52.22
116	113	180	62.77778	62.78
117	110	180	61.11111	61.11
118	103	180	57.22222	57.22
119	135	180	75.00000	75.00
120	155	180	86.11111	86.11
121	128	180	71.11111	71.11
122	135	180	75.00000	75.00
123	84	180	46.66667	46.67
124	56	180	31.11111	31.11
125	134	180	74.44444	74.44
126	112	180	62.22222	62.22
127	124	180	68.88889	68.89
128	131	180	72.77778	72.78
129	97	180	53.88889	53.89

SAT 9th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
130	151	180	83.88889	83.89
131	80	180	44.44444	44.44
132	105	180	58.33333	58.33
133	126	180	70.00000	70.00
134	94	180	52.22222	52.22
135	112	180	62.22222	62.22
136	162	180	90.00000	90.00
137	147	180	81.66667	81.67
138	125	180	69.44444	69.44
139	168	180	93.33333	93.33
140	106	180	58.88889	58.89
141	123	180	68.33333	68.33
142	114	180	63.33333	63.33
143	109	180	60.55556	60.56
144	131	180	72.77778	72.78
145	122	180	67.77778	67.78
146	74	180	41.11111	41.11
147	102	180	56.66667	56.67
148	135	180	75.00000	75.00
149	126	180	70.00000	70.00
150	103	180	57.22222	57.22
151	119	180	66.11111	66.11
152	113	180	62.77778	62.78
153	104	180	57.77778	57.78
154	136	180	75.55556	75.56
155	125	180	69.44444	69.44
156	88	180	48.88889	48.89
157	133	180	73.88889	73.89
158	140	180	77.77778	77.78
159	106	180	58.88889	58.89
160	123	180	68.33333	68.33
161	125	180	69.44444	69.44
162	146	180	81.11111	81.11
163	118	180	65.55556	65.56
164	121	180	67.22222	67.22
165	115	180	63.88889	63.89
166	120	180	66.66667	66.67
167	143	180	79.44444	79.44
168	60	180	33.33333	33.33
169	63	180	35.00000	35.00
170	126	180	70.00000	70.00
171	99	180	55.00000	55.00
172	146	180	81.11111	81.11
173	146	180	81.11111	81.11
174	145	180	80.55556	80.56

SAT 9th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
175	117	180	65.00000	65.00
176	50	180	27.77778	27.78
177	137	180	76.11111	76.11
178	127	180	70.55556	70.56
179	122	180	67.77778	67.78
180	120	180	66.66667	66.67
181	67	180	37.22222	37.22
182	93	180	51.66667	51.67
183	86	180	47.77778	47.78
184	156	180	86.66667	86.67
185	121	180	67.22222	67.22
186	94	180	52.22222	52.22
187	109	180	60.55556	60.56
188	110	180	61.11111	61.11
189	129	180	71.66667	71.67
190	86	180	47.77778	47.78
191	116	180	64.44444	64.44
192	83	180	46.11111	46.11
193	80	180	44.44444	44.44
194	98	180	54.44444	54.44
195	97	180	53.88889	53.89
196	102	180	56.66667	56.67
197	160	180	88.88889	88.89
198	97	180	53.88889	53.89
199	144	180	80.00000	80.00
200	128	180	71.11111	71.11
201	107	180	59.44444	59.44
202	104	180	57.77778	57.78
203	117	180	65.00000	65.00
204	105	180	58.33333	58.33

SAT 10th Grade Basics Skills Battery

Total Reading, Language, and Math

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
1	118	180	65.55556	65.56
2	78	180	43.33333	43.33
3	72	180	40.00000	40.00
4	144	180	80.00000	80.00
5	78	180	43.33333	43.33
6	83	180	46.11111	46.11
7	94	180	52.22222	52.22
8	65	180	36.11111	36.11
9	80	180	44.44444	44.44
10	131	180	72.77778	72.78
11	112	180	62.22222	62.22
12	109	180	60.55556	60.56
13	115	180	63.88889	63.89
14	124	180	68.88889	68.89
15	150	180	83.33333	83.33
16	132	180	73.33333	73.33
17	80	180	44.44444	44.44
18	105	180	58.33333	58.33
19	125	180	69.44444	69.44
20	170	180	94.44444	94.44
21	83	180	46.11111	46.11
22	138	180	76.66667	76.67
23	97	180	53.88889	53.89
24	126	180	70.00000	70.00
25	118	180	65.55556	65.56
26	139	180	77.22222	77.22
27	121	180	67.22222	67.22
28	70	180	38.88889	38.89
29	96	180	53.33333	53.33
30	94	180	52.22222	52.22
31	94	180	52.22222	52.22
32	139	180	77.22222	77.22
33	84	180	46.66667	46.67
34	86	180	47.77778	47.78
35	62	180	34.44444	34.44
36	126	180	70.00000	70.00
37	79	180	43.88889	43.89
38	111	180	61.66667	61.67
39	132	180	73.33333	73.33
40	137	180	76.11111	76.11
41	104	180	57.77778	57.78
42	158	180	87.77778	87.78
43	116	180	64.44444	64.44

SAT 10th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
44	123	180	68.33333	68.33
45	126	180	70.00000	70.00
46	147	180	81.66667	81.67
47	68	180	37.77778	37.78
48	122	180	67.77778	67.78
49	96	180	53.33333	53.33
50	149	180	82.77778	82.78
51	145	180	80.55556	80.56
52	134	180	74.44444	74.44
53	121	180	67.22222	67.22
54	111	180	61.66667	61.67
55	121	180	67.22222	67.22
56	143	180	79.44444	79.44
57	109	180	60.55556	60.56
58	91	180	50.55556	50.56
59	98	180	54.44444	54.44
60	104	180	57.77778	57.78
61	144	180	80.00000	80.00
62	106	180	58.88889	58.89
63	129	180	71.66667	71.67
64	123	180	68.33333	68.33
65	99	180	55.00000	55.00
66	123	180	68.33333	68.33
67	95	180	52.77778	52.78
68	144	180	80.00000	80.00
69	52	180	28.88889	28.89
70	114	180	63.33333	63.33
71	58	180	32.22222	32.22
72	60	180	33.33333	33.33
73	118	180	65.55556	65.56
74	127	180	70.55556	70.56
75	148	180	82.22222	82.22
76	70	180	38.88889	38.89
77	53	180	29.44444	29.44
78	98	180	54.44444	54.44
79	107	180	59.44444	59.44
80	73	180	40.55556	40.56
81	151	180	83.88889	83.89
82	118	180	65.55556	65.56
83	125	180	69.44444	69.44
84	127	180	70.55556	70.56
85	164	180	91.11111	91.11
86	106	180	58.88889	58.89
87	110	180	61.11111	61.11

SAT 10th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
88	111	180	61.66667	61.67
89	134	180	74.44444	74.44
90	121	180	67.22222	67.22
91	87	180	48.33333	48.33
92	125	180	69.44444	69.44
93	118	180	65.55556	65.56
94	165	180	91.66667	91.67
95	122	180	67.77778	67.78
96	58	180	32.22222	32.22
97	70	180	38.88889	38.89
98	109	180	60.55556	60.56
99	104	180	57.77778	57.78
100	101	180	56.11111	56.11
101	113	180	62.77778	62.78
102	166	180	92.22222	92.22
103	97	180	53.88889	53.89
104	156	180	86.66667	86.67
105	117	180	65.00000	65.00
106	81	180	45.00000	45.00
107	99	180	55.00000	55.00
108	103	180	57.22222	57.22
109	140	180	77.77778	77.78
110	93	180	51.66667	51.67
111	76	180	42.22222	42.22
112	140	180	77.77778	77.78
113	110	180	61.11111	61.11
114	149	180	82.77778	82.78
115	115	180	63.88889	63.89
116	103	180	57.22222	57.22
117	103	180	57.22222	57.22
118	107	180	59.44444	59.44
119	57	180	31.66667	31.67
120	117	180	65.00000	65.00
121	109	180	60.55556	60.56
122	84	180	46.66667	46.67
123	118	180	65.55556	65.56
124	119	180	66.11111	66.11
125	104	180	57.77778	57.78
126	95	180	52.77778	52.78
127	122	180	67.77778	67.78
128	67	180	37.22222	37.22
129	76	180	42.22222	42.22
130	153	180	85.00000	85.00
131	124	180	68.88889	68.89

SAT 10th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
132	153	180	85.00000	85.00
133	156	180	86.66667	86.67
134	112	180	62.22222	62.22
135	97	180	53.88889	53.89
136	105	180	58.33333	58.33
137	140	180	77.77778	77.78
138	111	180	61.66667	61.67
139	135	180	75.00000	75.00
140	117	180	65.00000	65.00
141	99	180	55.00000	55.00
142	132	180	73.33333	73.33
143	111	180	61.66667	61.67
144	108	180	60.00000	60.00
145	135	180	75.00000	75.00
146	93	180	51.66667	51.67
147	160	180	88.88889	88.89
148	124	180	68.88889	68.89
149	116	180	64.44444	64.44
150	163	180	90.55556	90.56
151	93	180	51.66667	51.67
152	71	180	39.44444	39.44
153	132	180	73.33333	73.33
154	101	180	56.11111	56.11
155	119	180	66.11111	66.11
156	91	180	50.55556	50.56
157	80	180	44.44444	44.44
158	101	180	56.11111	56.11
159	83	180	46.11111	46.11
160	144	180	80.00000	80.00
161	123	180	68.33333	68.33
162	95	180	52.77778	52.78
163	48	180	26.66667	26.67
164	109	180	60.55556	60.56
165	133	180	73.88889	73.89
166	121	180	67.22222	67.22
167	97	180	53.88889	53.89
168	116	180	64.44444	64.44
169	152	180	84.44444	84.44
170	72	180	40.00000	40.00
171	127	180	70.55556	70.56
172	131	180	72.77778	72.78
173	153	180	85.00000	85.00
174	112	180	62.22222	62.22
175	107	180	59.44444	59.44

SAT 10th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
176	145	180	80.55556	80.56
177	106	180	58.88889	58.89
178	159	180	88.33333	88.33
179	104	180	57.77778	57.78
180	117	180	65.00000	65.00
181	122	180	67.77778	67.78
182	95	180	52.77778	52.78
183	131	180	72.77778	72.78
184	135	180	75.00000	75.00
185	74	180	41.11111	41.11
186	121	180	67.22222	67.22
187	80	180	44.44444	44.44
188	109	180	60.55556	60.56
189	108	180	60.00000	60.00
190	121	180	67.22222	67.22
191	138	180	76.66667	76.67
192	122	180	67.77778	67.78
193	122	180	67.77778	67.78
194	70	180	38.88889	38.89
195	143	180	79.44444	79.44
196	102	180	56.66667	56.67
197	114	180	63.33333	63.33
198	104	180	57.77778	57.78
199	116	180	64.44444	64.44
200	86	180	47.77778	47.78
201	139	180	77.22222	77.22
202	134	180	74.44444	74.44
203	120	180	66.66667	66.67
204	124	180	68.88889	68.89
205	95	180	52.77778	52.78
206	104	180	57.77778	57.78
207	109	180	60.55556	60.56
208	136	180	75.55556	75.56
209	111	180	61.66667	61.67
210	124	180	68.88889	68.89
211	101	180	56.11111	56.11
212	100	180	55.55556	55.56
213	109	180	60.55556	60.56
214	93	180	51.66667	51.67
215	73	180	40.55556	40.56
216	117	180	65.00000	65.00
217	113	180	62.77778	62.78
218	71	180	39.44444	39.44
219	127	180	70.55556	70.56

SAT 11th Grade Basics Skills Battery

Total Reading, Language, and Math

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
1	113	180	62.77778	62.78
2	132	180	73.33333	73.33
3	113	180	62.77778	62.78
4	136	180	75.55556	75.56
5	148	180	82.22222	82.22
6	116	180	64.44444	64.44
7	147	180	81.66667	81.67
8	157	180	87.22222	87.22
9	105	180	58.33333	58.33
10	114	180	63.33333	63.33
11	116	180	64.44444	64.44
12	91	180	50.55556	50.56
13	87	180	48.33333	48.33
14	67	180	37.22222	37.22
15	87	180	48.33333	48.33
16	104	180	57.77778	57.78
17	106	180	58.88889	58.89
18	140	180	77.77778	77.78
19	110	180	61.11111	61.11
20	130	180	72.22222	72.22
21	146	180	81.11111	81.11
22	102	180	56.66667	56.67
23	107	180	59.44444	59.44
24	110	180	61.11111	61.11
25	79	180	43.88889	43.89
26	85	180	47.22222	47.22
27	114	180	63.33333	63.33
28	123	180	68.33333	68.33
29	131	180	72.77778	72.78
30	126	180	70.00000	70.00
31	105	180	58.33333	58.33
32	112	180	62.22222	62.22
33	95	180	52.77778	52.78
34	117	180	65.00000	65.00
35	120	180	66.66667	66.67
36	66	180	36.66667	36.67
37	133	180	73.88889	73.89
38	112	180	62.22222	62.22
39	101	180	56.11111	56.11
40	107	180	59.44444	59.44
41	107	180	59.44444	59.44
42	121	180	67.22222	67.22
43	100	180	55.55556	55.56

SAT 11th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
44	132	180	73.33333	73.33
45	145	180	80.55556	80.56
46	65	180	36.11111	36.11
47	142	180	78.88889	78.89
48	106	180	58.88889	58.89
49	84	180	46.66667	46.67
50	128	180	71.11111	71.11
51	87	180	48.33333	48.33
52	128	180	71.11111	71.11
53	123	180	68.33333	68.33
54	73	180	40.55556	40.56
55	118	180	65.55556	65.56
56	100	180	55.55556	55.56
57	119	180	66.11111	66.11
58	128	180	71.11111	71.11
59	137	180	76.11111	76.11
60	106	180	58.88889	58.89
61	153	180	85.00000	85.00
62	56	180	31.11111	31.11
63	43	180	23.88889	23.89
64	78	180	43.33333	43.33
65	141	180	78.33333	78.33
66	107	180	59.44444	59.44
67	144	180	80.00000	80.00
68	105	180	58.33333	58.33
69	123	180	68.33333	68.33
70	91	180	50.55556	50.56
71	75	180	41.66667	41.67
72	51	180	28.33333	28.33
73	67	180	37.22222	37.22
74	140	180	77.77778	77.78
75	83	180	46.11111	46.11
76	141	180	78.33333	78.33
77	109	180	60.55556	60.56
78	122	180	67.77778	67.78
79	102	180	56.66667	56.67
80	101	180	56.11111	56.11
81	135	180	75.00000	75.00
82	80	180	44.44444	44.44
83	102	180	56.66667	56.67
84	79	180	43.88889	43.89
85	111	180	61.66667	61.67
86	114	180	63.33333	63.33
87	135	180	75.00000	75.00
88	75	180	41.66667	41.67

SAT 11th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
89	117	180	65.00000	65.00
90	120	180	66.66667	66.67
91	142	180	78.88889	78.89
92	129	180	71.66667	71.67
93	117	180	65.00000	65.00
94	115	180	63.88889	63.89
95	55	180	30.55556	30.56
96	116	180	64.44444	64.44
97	77	180	42.77778	42.78
98	120	180	66.66667	66.67
99	108	180	60.00000	60.00
100	129	180	71.66667	71.67
101	69	180	38.33333	38.33
102	106	180	58.88889	58.89
103	113	180	62.77778	62.78
104	80	180	44.44444	44.44
105	134	180	74.44444	74.44
106	90	180	50.00000	50.00
107	91	180	50.55556	50.56
108	156	180	86.66667	86.67
109	156	180	86.66667	86.67
110	136	180	75.55556	75.56
111	122	180	67.77778	67.78
112	141	180	78.33333	78.33
113	127	180	70.55556	70.56
114	80	180	44.44444	44.44
115	111	180	61.66667	61.67
116	91	180	50.55556	50.56
117	90	180	50.00000	50.00
118	130	180	72.22222	72.22
119	79	180	43.88889	43.89
120	122	180	67.77778	67.78
121	124	180	68.88889	68.89
122	116	180	64.44444	64.44
123	75	180	41.66667	41.67
124	85	180	47.22222	47.22
125	102	180	56.66667	56.67
126	97	180	53.88889	53.89
127	117	180	65.00000	65.00
128	109	180	60.55556	60.56
129	86	180	47.77778	47.78
130	89	180	49.44444	49.44
131	92	180	51.11111	51.11
132	56	180	31.11111	31.11
133	114	180	63.33333	63.33

SAT 11th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
134	114	180	63.33333	63.33
135	148	180	82.22222	82.22
136	76	180	42.22222	42.22
137	108	180	60.00000	60.00
138	125	180	69.44444	69.44
139	106	180	58.88889	58.89
140	102	180	56.66667	56.67
141	137	180	76.11111	76.11
142	118	180	65.55556	65.56
143	100	180	55.55556	55.56
144	128	180	71.11111	71.11
145	135	180	75.00000	75.00
146	83	180	46.11111	46.11
147	153	180	85.00000	85.00
148	76	180	42.22222	42.22
149	111	180	61.66667	61.67
150	151	180	83.88889	83.89
151	127	180	70.55556	70.56
152	130	180	72.22222	72.22
153	128	180	71.11111	71.11
154	98	180	54.44444	54.44
155	119	180	66.11111	66.11
156	127	180	70.55556	70.56
157	103	180	57.22222	57.22
158	132	180	73.33333	73.33
159	118	180	65.55556	65.56
160	122	180	67.77778	67.78
161	100	180	55.55556	55.56
162	155	180	86.11111	86.11
163	121	180	67.22222	67.22
164	105	180	58.33333	58.33
165	123	180	68.33333	68.33
166	120	180	66.66667	66.67
167	85	180	47.22222	47.22
168	111	180	61.66667	61.67
169	123	180	68.33333	68.33
170	98	180	54.44444	54.44
171	64	180	35.55556	35.56
172	114	180	63.33333	63.33
173	104	180	57.77778	57.78
174	122	180	67.77778	67.78
175	142	180	78.88889	78.89
176	81	180	45.00000	45.00
177	100	180	55.55556	55.56
178	123	180	68.33333	68.33

SAT 11th Grade Basics Skills Battery

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
179	156	180	86.66667	86.67
180	144	180	80.00000	80.00
181	112	180	62.22222	62.22
182	147	180	81.66667	81.67
183	119	180	66.11111	66.11
184	95	180	52.77778	52.78
185	108	180	60.00000	60.00
186	113	180	62.77778	62.78
187	79	180	43.88889	43.89
188	84	180	46.66667	46.67
189	81	180	45.00000	45.00
190	75	180	41.66667	41.67
191	91	180	50.55556	50.56
192	114	180	63.33333	63.33
193	112	180	62.22222	62.22
194	104	180	57.77778	57.78
195	125	180	69.44444	69.44
196	98	180	54.44444	54.44
197	92	180	51.11111	51.11
198	169	180	93.88889	93.89
199	63	180	35.00000	35.00
200	122	180	67.77778	67.78
201	145	180	80.55556	80.56
202	139	180	77.22222	77.22
203	117	180	65.00000	65.00
204	127	180	70.55556	70.56
205	85	180	47.22222	47.22
206	131	180	72.77778	72.78
207	85	180	47.22222	47.22
208	121	180	67.22222	67.22
209	85	180	47.22222	47.22
210	82	180	45.55556	45.56
211	93	180	51.66667	51.67
212	92	180	51.11111	51.11
213	97	180	53.88889	53.89
214	99	180	55.00000	55.00
215	140	180	77.77778	77.78
216	89	180	49.44444	49.44
217	99	180	55.00000	55.00

APPENDIX C

SAT 9th Grade
All Transfers Out

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
4	120	180	66.66667	66.67
11	118	180	65.55556	65.56
16	49	180	27.22222	27.22
21	114	180	63.33333	63.33
26	103	180	57.22222	57.22
30	104	180	57.77778	57.78
31	134	180	74.44444	74.44
34	76	180	42.22222	42.22
36	131	180	72.77778	72.78
44	71	180	39.44444	39.44
47	133	180	73.88889	73.89
50	139	180	77.22222	77.22
59	116	180	64.44444	64.44
62	60	180	33.33333	33.33
72	133	180	73.88889	73.89
78	79	180	43.88889	43.89
80	159	180	88.33333	88.33
85	145	180	80.55556	80.56
108	117	180	65.00000	65.00
125	134	180	74.44444	74.44
146	74	180	41.11111	41.11
158	140	180	77.77778	77.78
159	106	180	58.88889	58.89
160	123	180	68.33333	68.33
167	143	180	79.44444	79.44
175	117	180	65.00000	65.00
179	122	180	67.77778	67.78
188	110	180	61.11111	61.11
190	86	180	47.77778	47.78
194	98	180	54.44444	54.44
201	107	180	59.44444	59.44
203	117	180	65.00000	65.00

SAT 10th Grade
All Transfers Out

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
18	105	180	58.33333	58.33
29	96	180	53.33333	53.33
38	111	180	61.66667	61.67
62	106	180	58.88889	58.89
69	52	180	28.88889	28.89
89	134	180	74.44444	74.44
96	58	180	32.22222	32.22
119	57	180	31.66667	31.67
133	156	180	86.66667	86.67
149	116	180	64.44444	64.44
166	121	180	67.22222	67.22
174	112	180	62.22222	62.22
178	159	180	88.33333	88.33
184	135	180	75.00000	75.00
188	109	180	60.55556	60.56
193	122	180	67.77778	67.78
198	104	180	57.77778	57.78
204	124	180	68.88889	68.89
209	111	180	61.66667	61.67

SAT 11th Grade
All Transfers Out

Student Number	Raw Score	Number of Items	Percentage Correct	Percentage Rounded
11	116	180	64.44444	64.44
19	110	180	61.11111	61.11
32	112	180	62.22222	62.22
35	120	180	66.66667	66.67
40	107	180	59.44444	59.44
59	137	180	76.11111	76.11
68	105	180	58.33333	58.33
77	109	180	60.55556	60.56
83	102	180	56.66667	56.67
97	77	180	42.77778	42.78
100	129	180	71.66667	71.67
118	130	180	72.22222	72.22
149	111	180	61.66667	61.67
151	127	180	70.55556	70.56
152	130	180	72.22222	72.22
153	128	180	71.11111	71.11
154	98	180	54.44444	54.44
155	119	180	66.11111	66.11
164	105	180	58.33333	58.33
168	111	180	61.66667	61.67
171	64	180	35.55556	35.56
186	113	180	62.77778	62.78
188	84	180	46.66667	46.67
191	91	180	50.55556	50.56
192	114	180	63.33333	63.33
203	117	180	65.00000	65.00
212	92	180	51.11111	51.11
216	89	180	49.44444	49.44